

OPPLE

Test Report

IEC 60598-2-2

Luminaires

Part 2: Particular requirements

Section Two – Recessed luminaires

Report Number : OPSZ201712300YH-S01

Test by : Zhao Xiaobao

(name + signature)..... :

Approved by : Clifford Zhao

(name + signature)..... :

Date of issue : 2017-12-29

Total Page..... : 32



Test Lab : Suzhou OPple lighting Co.,Ltd Lab

Address..... : Suzhou Wujiang Fenghu economic development zone east of fengyang road

The name of Applicant : Suzhou OPple lighting Co.,Ltd

Address..... : Suzhou Wujiang Fenghu economic development zone east of fengyang road

Test specification..... :

Standard : IEC 60598-2-2 used in conjunction with IC 60598-1:2014

The name of sample : LED Downlight

Brand..... : OPple

Manufacturer..... : Suzhou OPple lighting Co., Ltd

Model : LED DL-RC-P R150 11W; LED DL-RC-P R200 15W
LED DL-RC-P R200 22W; LED DL-RC-P R200 33W
LED DL-RC-P R150 11W DALI; LED DL-RC-P R200 15W DALI
LED DL-RC-P R200 22W DALI; LED DL-RC-P R200 33W DALI

Technical parameters : 220-240V~, 50/60Hz, class II, IP20, Max power 33W

Information of test Project	
The type of base	N/A
Possible test case verdicts	
- test object does meet the requirement.....	P (Pass)
- test object does not meet the requirement.....	F (Fail)
- test case does not apply to the test object	N/A (Not applicable)
- test case does not tested.....	N/T (Not tested)
Test time	
Project received date	2017-12-12
Test date.....	2017-12-12~2017-12-29
General Remark:	
<p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>The result of report consider the uncertainty of equipment and method.</p>	
Factory name and address:	Suzhou OPPL lighting Co.,Ltd Suzhou Wujiang Fenghu economic development zone east of fengyang road
R&D project Number	N/A
R&D project name	N/A
Contacts.....	N/A

Standard digest (Test item and digest):

The product fulfils the requirements if IEC 60598-2-2:2011 used in conjunction with IEC 60598-1:2014

The driver in these products has been test according to IEC 61347-1:2014 and IEC 560598-2-13:2013

Mark:

OPPLE LED Downlight Performer Model: LED DL-RC-P R150 11W Color Temperature: 3000K Rated Wattage: 11W(30×0.3W/LED Module) Rated Voltage: 220-240V~ 50/60Hz Rated Current: 55mA Power Factor: 0.9 Suitable for indoor use Made in China ZS 2017-12-30 OPPL Lighting Co., Ltd			OPPLE LED Downlight Performer Model: LED DL-RC-P R200 15W Color Temperature: 3000K Rated Wattage: 15W(56×0.22W/LED Module) Rated Voltage: 220-240V~ 50/60Hz Rated Current: 70mA Power Factor: 0.9 Suitable for indoor use Made in China ZS 2017-12-30 OPPL Lighting Co., Ltd		
OPPLE LED Downlight Performer Model: LED DL-RC-P R200 22W Color Temperature: 3000K Rated Wattage: 22W(55×0.35W/LED Module) Rated Voltage: 220-240V~ 50/60Hz Rated Current: 120mA Power Factor: 0.9 Suitable for indoor use Made in China ZS 2017-12-30 OPPL Lighting Co., Ltd			OPPLE LED Downlight Performer Model: LED DL-RC-P R200 33W Color Temperature: 3000K Rated Wattage: 33W(80×0.35W/LED Module) Rated Voltage: 220-240V~ 50/60Hz Rated Current: 160mA Power Factor: 0.9 Suitable for indoor use Made in China ZS 2017-12-30 OPPL Lighting Co., Ltd		
OPPLE LED Downlight Performer DALI Model: LED DL-RC-P R150 11W DALI Color Temperature: 3000K Rated Wattage: 11W(30×0.3W/LED Module) Rated Voltage: 220-240V~ 50/60Hz Rated Current: 55mA Power Factor: 0.9 Suitable for indoor use Made in China ZS 2017-12-30 OPPL Lighting Co., Ltd			OPPLE LED Downlight Performer DALI Model: LED DL-RC-P R200 15W DALI Color Temperature: 3000K Rated Wattage: 15W(56×0.22W/LED Module) Rated Voltage: 220-240V~ 50/60Hz Rated Current: 70mA Power Factor: 0.9 Suitable for indoor use Made in China ZS 2017-12-30 OPPL Lighting Co., Ltd		
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OPPLE LED Driver Model: OP-DY220/15-165CC Input: 176-264V~ 50/60Hz 0.07A λ: 0.9@220V Output: CC165mA = 35V-95V 100VMax Load: Max15W t _a : 40°C t _c : 75°C Made in China Oppl Lighting Co., Ltd.					
OPPLE LED Driver Model: OP-DY220/33-315CC-DALI Input: 176-264V~ 50/60Hz 0.16A λ: 0.9@220V Output: CC315mA = 50V-108V 160V Max Load: Max 33W t _a : 40°C t _c : 75°C Made in China Oppl Lighting Co., Ltd.					

General information of the sample:

LED recessed luminaires, Non-user replaceable LEDs light source, independent LED driver.

These series are similar products different in rated power.

Two model with same rated power are same products different in type of reflector.

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict

2.1 (0)	SCOPE		P
2.1 (0.1)	More sections applicable	Yes / No	—

2.4 (2)	CLASSIFICATION		P
2.4 (2.2)	Type of protection	Class II	—
2.4 (2.3)	Degree of protection	IP 20	—
2.4 (2.4)	Portable or handheld luminaire	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	Fixed luminaire suitable for normally flammable surfaces	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	Fixed luminaire suitable for non-combustible materials only	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
2.4 (2.5)	Luminaire for normal use	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	Luminaire for rough service	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

2.5 (3)	MARKING		P
2.5.1 (-)	Warning notice, if not suitable for insulating ceiling		P
2.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
2.5 (3.3)	Additional information		P
	Language of instructions		P
2.5 (3.3.1)	Combination luminaires		N/A
2.5 (3.3.2)	Nominal frequency in Hz		P
2.5 (3.3.3)	Operating temperatures		P
2.5 (3.3.4)	Symbol or warning notice		P
2.5 (3.3.5)	Wiring diagram		P
2.5 (3.3.6)	Special conditions		P
2.5 (3.3.7)	Metal halid lamp luminaire – warning		N/A
2.5 (3.3.8)	Limitation for semi-luminaires		N/A
2.5 (3.3.9)	Power factor and supply current		P
2.5 (3.3.10)	Suitability for use indoor		P
2.5 (3.3.11)	Luminaires with remote control		N/A
2.5 (3.3.12)	Clip-mounted luminaire-warning		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.5 (3.3.13)	Specifications of protective shields		N/A
2.5 (3.3.14)	Symbol for nature of supply		P
2.5 (3.3.15)	Rated current of socket outlet		N/A
2.5 (3.3.16)	Rough service luminaire		N/A
2.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		P
2.5 (3.3.18)	Non-ordinary luminaires with PVC cable		P
2.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P

2.6 (4)	CONSTRUCTION		P
2.6 (4.2)	Components replaceable without difficulty		P
2.6 (4.3)	Wireways smooth and free from sharp edges		P
2.6 (4.4)	Lampholders		N/A
2.6 (4.4.1)	Integral lampholder		N/A
2.6 (4.4.2)	Wiring connection		N/A
2.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
2.6 (4.4.4)	Positioning		N/A
2.6 (4.4.5)	Peak pulse voltage		N/A
2.6 (4.4.6)	Centre contact		N/A
2.6 (4.4.7)	Rough service luminaires		N/A
2.6 (4.4.8)	Lamp connectors		N/A
2.6 (4.5)	Starter holders		N/A
	Starter holders in luminaires other than class II		N/A
	Starter holder class II construction		N/A
2.6 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
2.6 (4.7)	Terminals and supply connections		P
2.6 (4.7.1)	Contact to metal parts		P
2.6 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
2.6 (4.7.3)	Terminals for supply conductors		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.6 (4.7.4)	Terminals other than supply connection		N/A
2.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
2.6 (4.7.6)	Multi-pole plug		N/A
2.6 (4.8)	Switches:		N/A
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
2.6 (4.9)	Insulating lining and sleeves		P
2.6 (4.9.1)	Retainment		P
	Method of fixing.....:		P
2.6 (4.9.2)	Insulated linings and sleeves		P
	a) & c) Insulation resistance and electric strength		P
	b) Ageing test. Temperature (°C)		N/A
2.6 (4.10)	Insulation of Class II luminaires		P
2.6 (4.10.1)	No contact, mounting surface - accessible metal parts - wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
2.6 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
2.6 (4.10.3)	Retainment of insulation:		P
	- fixed		P
	- unable to be replaced; luminaire inoperative		P
	- sleeves retained in position		P
	- lining in lampholder		N/A
2.6 (4.11)	Electrical connections		P
2.6 (4.11.1)	Contact pressure		P
2.6 (4.11.2)	Screws:		P
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
	- at least two self-tapping screws		N/A
2.6 (4.11.3)	Screw locking:		N/A

到引用源。

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Clause	Requirement + Test	Result - Remark	Verdict
	- spring washer		N/A
	- rivets		N/A
2.6 (4.11.4)	Material of current-carrying parts		P
2.6 (4.11.5)	No contact to wood		P
2.6 (4.11.6)	Electro-mechanical contact systems		N/A
2.6 (4.12)	Mechanical connections and glands		N/A
2.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part :		P
	Torque test: torque (Nm); part :		N/A
	Torque test: torque (Nm); part :		N/A
2.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
2.6 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)..... :		N/A
	- lampholder; torque (Nm) :		N/A
	- push-button switches; torque 0,8 Nm..... :		N/A
2.6 (4.12.5)	Screwed glands; force (N)..... :		N/A
2.6 (4.13)	Mechanical strength		P
2.6 (4.13.1)	Impact tests:		P
2.6.1 (-)	- recessed parts providing protection against electric shock; energy (Nm) :		N/A
	- other recessed parts; energy (Nm) :		P
2.6 (4.13.1)	- fragile parts; energy (Nm) :		N/A
	- other parts; energy (Nm)..... :		N/A
	1) live parts		N/A
	2) linings		N/A
	3) protection		N/A
	4) covers		N/A
2.6 (4.13.3)	Straight test finger		P
2.6 (4.13.4)	Rough service luminaires		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A

到引用源。

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Clause	Requirement + Test	Result - Remark	Verdict
	d) for temporary installations and suitable for mounting on a stand		N/A
2.6 (4.13.6)	Tumbling barrel		N/A
2.6 (4.14)	Suspensions and adjusting devices		P
2.6 (4.14.1)	Mechanical load:		P
	A) four times the weight		P
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm).....		N/A
	metal rod. Diameter (mm).....		N/A
2.6 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		N/A
	Stress in conductors (N/mm ²)		N/A
	Semi-luminaires - mass (kg).....		N/A
	Semi-luminaires - bending moment (Nm)		N/A
2.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
2.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
2.6 (4.14.5)	Guide pulleys		N/A
2.6 (4.14.6)	Strain on socket-outlets		N/A
2.6 (4.15)	Flammable materials:		N/A
	- glow-wire test 650 ° C		N/A
	- spacing ≥ 30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		N/A
	- thermal protection		N/A
	- electronic circuits exempted		N/A
2.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	b) temperature sensing control		N/A
	c) surface temperature		N/A
2.6 (4.16)	Luminaires marked with F-symbol		N/A
	No lamp control gear	(compliance with Section 12)	N/A
2.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
2.6 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
2.6 (4.16.3)	"F" curve measured	(see 12.6)	N/A
2.6 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
2.6 (4.18)	Resistance to corrosion:		N/A
2.6 (4.18.1)	- rust-resistance		N/A
2.6 (4.18.2)	- season cracking in copper		N/A
2.6 (4.18.3)	- corrosion of aluminium		N/A
2.6 (4.19)	Ignitors compatible with ballast		N/A
2.6 (4.20)	Rough service vibration		N/A
2.6 (4.21)	Protective shield:		N/A
2.6 (4.21.1)	Shield fitted		N/A
2.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
2.6 (4.21.3)	No direct path		N/A
2.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment		N/A
2.6 (4.22)	Attachments to lamps		N/A
2.6 (4.23)	Semi-luminaires comply class II		N/A
2.6 (4.24)	UV radiation, metal halide lamps		P
2.6 (4.25)	No sharp point or edges		P
2.6 (4.26)	Short-circuit protection:		N/A
2.6 (4.26.1)	Uninsulated accessible SELV parts		N/A
2.6 (4.26.2)	Short-circuit test		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.6 (4.26.3)	Test chain according to IEC 61032		N/A

2.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
	Working voltage (V)		—
	Voltage form	Sinusoidal <input checked="" type="checkbox"/> Non-sinusoidal <input type="checkbox"/>	—
	PTI	< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>	—
	Rated pulse voltage (kV)		—
	(1) Current-carrying parts of different polarity: cr (mm); cl (mm)		P
	(2) Current-carrying parts and accessible parts: cr (mm); cl (mm)		P
	(3) Parts becoming live due to breakdown of basic insulation and metal parts: cr (mm); cl (mm)		P
	(4) Outer surface of cable where it is clamped and metal parts: cr (mm); cl (mm)		P
	(5) Current-carrying parts of switches and metal parts, after removal of insulation: cr (mm); cl (mm)		P
	(6) Current-carrying parts and supporting surface: cr (mm); cl (mm)		P

2.8 (7)	PROVISION FOR EARTHING		N/A
2.8 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω		N/A
	Two self-tapping screws used		N/A
	Thread-forming screws		N/A
	Connector earthing first		N/A
2.8 (7.2.2 + 7.2.3)	Earth continuity in joints etc.		N/A
2.8 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
2.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
2.8 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
2.8 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.8 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
2.8 (7.2.10)	Class II luminaire for looping-in		N/A
2.8 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A

2.9 (14)	SCREW TERMINALS		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 3)	N/A

2.9 (15)	SCREWLESS TERMINALS		P
	Separately approved; component list	(see Annex 1)	P
	Part of the luminaire	(see Annex 4)	N/A

2.10 (5)	EXTERNAL AND INTERNAL WIRING		P
2.10 (5.2)	Supply connection and external wiring		P
2.10 (5.2.1)	Means of connection.....:	Power cord	P
2.10 (5.2.2)	Type of cable..... :		N/A
	Nominal cross-sectional area (mm ²) :		P
2.10 (5.2.3)	Type of attachment, X, Y or Z	Y	P
2.10 (5.2.5)	Type Z not connected to screws		N/A
2.10 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
2.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
2.10 (5.2.8)	Insulating bushings:		P
	- suitably fixed		P
	- material in bushings		P
	- tubes or guards made of insulating material		P
2.10 (5.2.9)	Locking of screwed bushings		N/A
2.10 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
2.10 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
2.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	Y	P
2.10 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N):		P
	- torque test: torque (Nm) :		P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
2.10 (5.2.11)	External wiring passing into luminaire		P
2.10 (5.2.12)	Looping-in terminals		N/A
2.10 (5.2.13)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
2.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
2.10 (5.2.15)	Colour code low voltage		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Appliance couplers of class II type		N/A
2.10 (5.3)	Internal wiring		P
2.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)		N/A
	- temperatures	(see Annex 2)	N/A
	Green-yellow for earth only		N/A
2.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N/A
	Cross-sectional area (mm ²)..... :		N/A
	Insulation thickness		N/A
	Extra insulation added where necessary		N/A
2.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Adequate cross-sectional area and insulation thickness		P
2.10 (5.3.1.3)	Double or reinforced insulation for class II		P
2.10 (5.3.1.4)	Conductors without insulation		N/A
2.10 (5.3.1.5)	SELV current-carrying parts		N/A
2.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
2.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
2.10 (5.3.3)	Openings		P
	Bushings not removable		P
	Bushings in sharp openings		P
	Cables with protective sheath		P

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.10 (5.3.4)	Joints and junctions effectively insulated		P
2.10 (5.3.5)	Strain on internal wiring		P
2.10 (5.3.6)	Wire carriers		N/A
2.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A

2.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
2.11 (8.2.1)	Live parts not accessible		P
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high pressure discharge lamp		N/A
2.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
2.11 (8.2.3)	Class II luminaire:		P
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		P
	- glass protective shields not used as supplementary insulation		N/A
	Class I luminaire with BC lampholder		N/A
2.11 (8.2.4)	Portable luminaire:		N/A
	- protection independent of supporting surface		N/A
	- terminal block completely covered		N/A
2.11 (8.2.6)	Covers reliably secured		P
2.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu\text{F}$		P
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A

2.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
2.12 (12.3)	Endurance test:		P
	- mounting-position	Normal use	—
	- test temperature (°C)	35	—

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- total duration (h)	240h	—
	- supply voltage: Un factor; calculated voltage (V)	264V	—
	- lamp used	LED	—
2.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		P
	- marking legible		P
	- no cracks, deformation etc.		P
2.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
2.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	P
2.12 (12.6)	Thermal test (failed lamp control gear condition):		N/A
2.12 (12.6.1)	- case of abnormal conditions		—
	- electronic lamp control gear		P
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C): at 1,1 Un		N/A
	- calculated mounting surface temperature (°C) ..:		N/A
	- track-mounted luminaires		N/A
2.12 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C): :		N/A
	- track-mounted luminaires		N/A
2.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
	- case of abnormal conditions		—
	- measured winding temperature (°C) at 1,1 Un		—
	- measured temperature of fixing point/ exposed part (°C) at 1,1 Un		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- calculated temperature of fixing point/ exposed part (°C)..... :		N/A
2.12 (12.7.2)	Temperature sensing control		N/A
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured temperature of fixing point/ exposed part (°C)		N/A

2.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
2.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP	IP 20	—
	- mounting position during test		—
	- fixing screws tightened; torque (Nm)		—
	- tests according to clauses..... :		—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or where it could become a hazard		P
	d) i) For luminaires without drain holes – no water entry		P
	d) ii) For luminaires with drain holes – no hazardous water entry		N/A
	e) no water in watertight luminaire		N/A
	f) no contact with live parts (IP 2X)		N/A
	f) no entry into enclosure (IP 3X and IP 4X)		N/A
2.13 (9.3)	Humidity test 48 h		P

2.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
2.14 (10.2.1)	Insulation resistance test		P
	Insulation resistance (MΩ):		P
	SELV:		N/A
	- between current-carrying parts of different polarity		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- between current-carrying parts and mounting surface		N/A
	- between current-carrying parts and metal parts of the luminaire		N/A
	Other than SELV:		P
	- between live parts of different polarity		P
	- between live parts and mounting surface		P
	- between live parts and metal parts		P
	- between live parts of different polarity through action of a switch.....		N/A
2.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V):		p
	SELV:		N/A
	- between current-carrying parts of different polarity		N/A
	- between current-carrying parts and mounting surface		N/A
	- between current-carrying parts and metal parts of the luminaire		N/A
	Other than SELV:		P
	- between live parts of different polarity	1480V	P
	- between live parts and mounting surface	2960V	P
	- between live parts and metal parts	2960V	P
	- between live parts of different polarity through action of a switch.....		N/A
2.14 (10.3.1)	Leakage current (mA)	0.012mA	P

2.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
2.15 (13.2.1)	Ball-pressure test:		P
	- part tested; temperature (°C).....	Lens	P
	- part tested; temperature (°C).....	Driver Enclose	P

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.15 (13.3.1)	Needle flame test (10 s):		p
	- part tested..... :	Lens	p
	- part tested..... :	Driver Enclose	p
2.15 (13.3.2)	Glow-wire test (650°C):		p
	- part tested..... :	Lens	p
	- part tested..... :	Driver Enclose	p
2.15 (13.4.1)	Tracking test: part tested..... :		N/A

	ANNEX 1: components						P
object/part No.	code	manufacturer/trademark	type/model	technical data	standard	mark(s) of conformity	
		ANNEX 2: temperature measurements, thermal tests of Section 12					P
cc	Type reference.....:			LED DL-RC-P R200 33W		—	
	Lamp used..... :			LEDs		—	
	Lamp control gear used			OP-DY220/33-315CC		—	
	Mounting position of luminaire..... :			As normal use		—	
	Supply wattage (W)			32W		—	
	Supply current (A)			0.138A		—	
	Calculated power factor..... :			0.95		—	
	Table: measured temperatures corrected for ta = 25 °C:					P	
	- abnormal operating mode.....:					—	
	- test 1: rated voltage					—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage			254.4V		—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage..... :					—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage			264V		—	
temperature (°C) of part		clause 12.4 - normal				clause 12.5 - abnormal	
		test 1	test 2	test 3	limits	test 4	limit
Wire		--	30.7	--	90	--	--

到引用源。

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Tc of driver	--	59.5	--	75	--	--
Input terminal	--	38.3	--	110	--	--
Mounting surface	--	57.8	--	90	--	--
LED Lens	--	81.2	--	--	--	--
Reflector	--	42.5	--	--	--	--

	ANNEX 3: screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal		—
	Rated current (A)		—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm ²)		N/A
(14.3.3)	Conductor space (mm)		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread) ..	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm)		N/A
	Torque (Nm)		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N)		N/A
(14.4.8)	Without undue damage		N/A
	ANNEX 4: screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal		—
	Rated current (A)		—

到引用源。

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到引用源。

IEC 60598-2-2										
Clause	Requirement + Test					Result - Remark				Verdict
	Voltage drop of two inseparable joints									
	Voltage drop after 10th alt. 25th cycle									
	Max. allowed voltage drop (mV)									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										
	Voltage drop after 50th alt. 100th cycle									
	Max. allowed voltage drop (mV)									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										
	Continued ageing: voltage drop after 10th alt. 25th cycle									
	Max. allowed voltage drop (mV)									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										
	Continued ageing: voltage drop after 50th alt. 100th cycle									
	Max. allowed voltage drop (mV)									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										

4 (4)	GENERAL REQUIREMENTS			P
- (4)	Insulation materials according requirements in Annex N of IEC 61347-1	(see Annex N)		N/A
- (4)	Compliance of independent controlgear enclosure with IEC 60 598-1			N/A
- (4)	Built-in magnetic ballast with double or reinforced insulation comply with Annex I of IEC 61347-1			N/A
- (4)	Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1	(see Annex O)		N/A
4 (4)	SELV controlgear comply with Annex I of this part 2 and Annex L of IEC 61347-1	(see Annex L)		N/A
4 (-)	Transformer comply with IEC 61558			P
	Dielectric strength test of insulated winding wires is limited to 3 kV if input voltage ≤ 300 V			N/A

6 (6)	CLASSIFICATION			P
	Built-in controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		—
	Independent controlgear	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		—
	Integral controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		—
6 (-)	Auto-wound controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		—
	Separating controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		—
	Isolating controlgear	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		—

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	SELV controlgear :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
7 (7)	MARKING		P
7.1 (7.1)	Mandatory markings		P
	a) mark of origin		P
	b) model number or type reference		P
	c) symbol for independent controlgear, if applicable		P
	d) correlation between interchangeable parts and controlgear marked		P
	e) rated supply voltage (V)		P
	supply frequency (Hz)		P
	supply current (A)		P
	f) earthing symbol		P
	k) wiring diagram		P
	l) value of t_c		P
	m) symbol for declared temperature		P
	t) LUM earthing symbol		P
	u) if not SELV maximum working voltage U_{out} between:		N/A
	- output terminals (V)		N/A
	- output terminals and earth (V)		N/A
7.1 (-)	Constant voltage type:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	- rated output power P_{rated} (W)		N/A
	- rated output voltage U_{rated} (V)		N/A
	Constant current type:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	- rated output power P_{rated} (W)	15W;33W	P
	- rated output current I_{rated} (A)		N/A
	Indication if for LED modules only		P
7.1 (7.2)	Marking durable and legible		P
	Rubbing 15 s water, 15 s petroleum; marking legible		P
7.2 (7.1)	Information to be provided, if applicable		P
	h) declaration on protection against accidental contact		N/A
	i) cross-section of conductors (mm^2)		P
	j) number, type and wattage of lamp(s)		N/A
	s) SELV symbol		P
7.2 (-)	- declaration of mains connected windings		P
8 (10)	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		P
- (10.1)	Controlgear protected against accidental contact with live parts		P
- (A2)	Voltage measured with 50 $k\Omega$	(see Annex A)	P
- (A3)	Voltage > 35 V peak or > 60 V d.c. or protective impedance device	(see Annex A)	N/A
- (10.1)	Lacquer or enamel not used for protection or insulation		P

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Adequate mechanical strength on parts providing protection		N/A
- (10.2)	Capacitors > 0,5 μ F: voltage after 1 min (V): < 50 V	0.7V	P
- (10.3)	Controlgear providing SELV		P
	Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear		P
	No connection between output circuit and the body or protective earthing circuit		P
	No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts		N/A
	SELV outputs separated by at least basic insulation		P
	ELV conductive parts insulated as live parts		N/A
	Tests according Annex L of IEC 61347-1		P
- (10.4)	Accessible conductive parts in SELV circuits		P
	Output voltage under load ≤ 25 V r.m.s. or ≤ 60 V d.c.		P
	If output voltage > 25 V r.m.s. or > 60 V d.c.; No load output ≤ 35 V peak or ≤ 60 V d.c. and touch current does not exceed 0,7 mA (peak) or 2 mA d.c.	0.1mA	P
	One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V		P
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		P
	Y1 or Y2 capacitors comply with IEC 60384-14		P
	Resistors comply with test (a) in 14.1 of IEC 60065		P
9 (8)	TERMINALS		P
	Screw terminals according section 14 of IEC 60598-1:		P
	Separately approved; component list	(see Annex 1)	P
	Part of the controlgear	(see Annex 2)	P
	Screwless terminals according section 15 of IEC 60598-1:		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the controlgear	(see Annex 3)	N/A
10 (9)	PROVISION FOR PROTECTIVE EARTHING		P
- (9.1)	Provisions for protective earthing		P
	Terminal complying with clause 8		P
	Locked against loosening and not possible to loosen by hand		P
	Not possible to loosen clamping means unintentionally on screwless terminals		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Earthing via means of fixing		P
	Earthing terminal only used for the earthing of the control gear		P
	All parts of material minimizing the danger of electrolytic corrosion		P
	Made of brass or equivalent material		P
	Contact surface bare metal		P
- (9.2)	Provision for functional earthing		N/A
	Comply with clause 8 and 9.1		N/A
- (9.3)	Earth contact via the track on the printed board		P
	Test with a current of 25 A between earthing terminal and each of the accessible metal parts; measured resistance (Ω) at ≥ 10 A according 7.2.3 of IEC 60598-1: $< 0,5 \Omega$	0.2 Ω	P
- (9.4)	Earthing of built-in lamp controlgear		N/A
	Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1		N/A
	Earthing terminal only for earthing the built-in controlgear		N/A
- (9.5)	Earthing via independent controlgear		N/A
- (9.5.1)	Earth connection to other equipment		N/A
	Looping or through connection, conductor min. 1,5 mm ² and of copper or equivalent		N/A
	Protective earthing wires in line with 5.3.1.1 and clause 7		N/A
- (9.5.2)	Earthing of the lamp compartments powered via the independent lamp controlgear		N/A
	Test with a current of 25 A between input and output earth terminals; measured resistance (Ω) between earthing terminal and each of the accessible metal parts at ≥ 10 A according 7.2.3 of IEC 60598-1: $< 0,5 \Omega$		N/A
	Output earthing terminal marked as in 7.1 t) of IEC 61347-1		N/A
11 (11)	MOISTURE RESISTANCE AND INSULATION		P
	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (M Ω):		P
	For basic insulation ≥ 2 M Ω	≥ 999 M Ω	P
	For double or reinforced insulation ≥ 4 M Ω		N/A
	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1		P
11 (-)	Adequate insulation between input and output terminals not bounded together in SELV-equivalent controlgear		P
12 (12)	ELECTRIC STRENGTH		P
	Immediately after clause 11 electric strength test for 1 min		P

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Basic insulation for SELV, test voltage 500 V		P
	Working voltage ≤ 50 V, test voltage 500 V		P
	Working voltage > 50 V ≤ 1000 V, test voltage (V):		P
	Basic insulation, $2U + 1000$ V		P
	Supplementary insulation, $2U + 1000$ V		N/A
	Double or reinforced insulation, $4U + 2000$ V		N/A
	No flashover or breakdown		P
	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1		P
14 (14)	FAULT CONDITIONS		P
- (14)	When operated under fault conditions the controlgear:		P
	- does not emit flames or molten material		P
	- does not produce flammable gases		P
	- protection against accidental contact not impaired		P
	Thermally protected controlgear does not exceed the marked temperature value		P
	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected	(see appended table)	P
- (14.1)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (except between live parts and accessible metal parts)	(see appended table)	P
	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3		P
- (14.2)	Short-circuit or interruption of semiconductor devices	(see appended table)	P
- (14.3)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	P
- (14.4)	Short-circuit across electrolytic capacitors	(see appended table)	P
- (14.5)	After the tests has been carried out on three samples:		P
	The insulation resistance ≥ 1 M Ω : ≥ 999 M Ω		P
	No flammable gases		P
	No accessible parts have become live		P
	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite		P
- (14.6)	Relevant fault condition tests with high-power supply		—
14 (-)	Temperature declared thermally protected lamp controlgear fulfil requirements in Annex C		N/A
15 (-)	TRANSFORMER HEATING		N/A
15.1	General		N/A
	Transformer comply with clause L.6 and L.7 of IEC 61347-1		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Output voltage of SELV controlgear not exceed limits in 10.4 of IEC 61347-1 during the test of 15.1 and 15.2		N/A
15.2 (-)	Normal operation		N/A
	Comply with clause L.6 of IEC 61347-1		N/A
15.3 (-)	Abnormal operation		N/A
	Comply with clause L.7 of IEC 61347-1		N/A
	Double LED modules or equivalent load connected in parallel to the output terminals of constant voltage type		N/A
	Double LED modules or equivalent load connected in parallel to the output terminals of constant current type		N/A
15 (-)	During and at the end of the tests no defect impairing safety, nor any smoke or flammable gases produced		N/A
16 (15)	CONSTRUCTION		P
- (15.1)	Wood, cotton, silk, paper and similar fibrous material		P
	Wood, cotton, silk, paper and similar fibrous material not used as insulation		P
- (15.2)	Printed circuits		P
	Printed circuits used as internal connections complies with clause 14		P
- (15.3)	Plugs and socket-outlets used in SELV or ELV circuits		N/A
	No dangerous compatibility between output socket-outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies		N/A
	Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4		N/A
	Plugs and socket-outlets for SELV ≤ 3 A, ≤ 25 V r.m.s. or ≤ 60 V d.c. and ≤ 72 W comply with IEC 60906-3 and IEC 60884-2-4 or:		N/A
	- plugs not able to enter socket-outlets of other standardised system		N/A
	- socket-outlets not admit plugs of other standardised system		N/A
	- socket-outlets without protective earth		N/A
17 (16)	CREEPAGE DISTANCES AND CLEARANCES		P
- (16)	Creepage distances and clearances according to Table 3 and 4, as appropriate	(see appended table)	P
	Controlgears providing SELV comply with L.1 in Annex L		P
	Insulating lining of metallic enclosures		P
	Basic insulation on printed boards tested according to clause 14		P

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Distances subjected to both sinusoidal voltage as non-sinusoidal pulses not less than value in either Table 3 or 4		P
	Creepage distances not less than minimum clearance		P
18 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS		P
	Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)		P
(4.11)	Electrical connections		P
(4.11.1)	Contact pressure		P
(4.11.2)	Screws:		P
	- self-tapping screws		N/A
	- thread-cutting screws		P
(4.11.3)	Screw locking:		P
	- spring washer		P
	- rivets		N/A
(4.11.4)	Material of current-carrying parts		P
(4.11.5)	No contact to wood or mounting surface		P
(4.11.6)	Electro-mechanical contact systems		N/A
(4.12)	Mechanical connections and glands		P
(4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		P
	Torque test: torque (Nm); part		P
	Torque test: torque (Nm); part		N/A
	Torque test: torque (Nm); part		N/A
(4.12.2)	Screws with diameter < 3 mm screwed into metal		P
(4.12.4)	Locked connections:		P
	- fixed arms; torque (Nm)		P
	- lampholder; torque (Nm)		N/A
	- push-button switches; torque 0,8 Nm		N/A
(4.12.5)	Screwed glands; force (Nm)		N/A
19 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
- (18.1)	Ball-pressure test:		P
	- part tested; temperature (°C)	Terminal 125°C	P
	- part tested; temperature (°C)	Terminal Cover 75°C	P
- (18.2)	Test of printed boards:		P
	- part tested	PCB board 125°C	P
	- part tested		N/A
- (18.3)	Glow-wire test (650°C):		P
	- part tested	Terminal Cover	P
	- part tested		N/A
- (18.4)	Needle flame test (10 s):		P
	- part tested	Terminal Cover	P
	- part tested		N/A
- (18.5)	Tracking test:		N/A
	- part tested		N/A
	- part tested		N/A

到引用源。

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
20 (19)	RESISTANCE TO CORROSION		N/A
	- test according 4.18.1 of IEC 60598-1		N/A
	- adequate varnish on the outer surface		N/A
14	TABLE: tests of fault conditions		
Part	Simulated fault		Hazard
			YES/NO
			YES/NO
			YES/NO
			YES/NO
			YES/NO

到引用源。

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Clause	Requirement + Test			Result - Remark			Verdict	
17 (16)	TABLES: Creepage distances and clearances						P	
Table 3	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages						P	
RMS working voltage (V) not exceeding		50	150	250	500	750	1000	
Creepage distances								
Required basic insulation, PTI ≥ 600		0,6	0,8	1,5	3	4	5,5	
Measured								
Required basic insulation, PTI < 600		1,2	1,6	2,5	5	8	10	
Measured								
Required supplementary insulation PTI ≥ 600		-	0,8	1,5	3	4	5,5	
Measured								
Required supplementary insulation PTI < 600		-	1,6	2,5	5	8	10	
Measured								
Required reinforced insulation		-	3,2	5	6	8	11	
Measured								
Clearances								
Required basic insulation		0,2	0,8	1,5	3	4	5,5	
Measured								
Required supplementary insulation		-	0,8	1,5	3	4	5,5	
Measured								
Required reinforced insulation		-	1,6	3	6	8	11	
Measured								
Table 4	Minimum distances (mm) for non-sinusoidal pulse voltages							
Rated pulse voltage (peak kV)		2,0	2,5	3,0	4,0	5,0	6,0	8,0
Required clearances		1,0	1,5	2	3	4	5,5	8
Measured								
Rated pulse voltage (peak kV)		10	12	15	20	25	30	40
Required clearances		11	14	18	25	33	40	60
Measured								
Rated pulse voltage (peak kV)		50	60	80	100	-	-	-
Required clearances		75	90	130	170	-	-	-
Measured								

到引用源。

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Clause	Requirement + Test	Result - Remark	Verdict
A (A)	ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK		P
(A.1)	Comply with A.2 or A.3		P
(A.2)	Voltage ≤ 35 V peak or ≤ 60 V d.c. :		P
(A.3)	If voltage > 35 V peak or > 60 V d.c. or protective impedance device; touch current does not exceed 0,7 mA (peak) or 2 mA d.c. :		P
	Comply with Annex G of IEC 60598-1		N/A
C (C)	ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRONIC LAMP CONTROLGEAR WITH MEANS OF PROTECTION AGAINST OVERHEATING		N/A
(C3)	GENERAL REQUIREMENTS		N/A
(C3.1)	Thermal protection means integral with the convertor, protected against mechanical damage		N/A
	Renewable only by means of a tool		N/A
	If function depending on polarity, for cord-connected equipment protection means in both leads		N/A
	Thermal links comply with IEC 60691		N/A
	Electrical controls comply with IEC 60730-2-3		N/A
(C3.2)	No risk of fire by breaking (clause C7)		N/A
(C5)	CLASSIFICATION		N/A
	a) automatic resetting type		—
	b) manual resetting type		—
	c) non-renewable, non-resetting type		—
	d) renewable, non-resetting type		—
	e) other type of thermal protection; description ... :		N/A
(C6)	MARKING		N/A
(C6.1)	Symbol for temperature declared thermally protected ballasts		N/A
(C6.2)	Declaration of the type of protection provided		N/A
(C7)	LIMITATION OF HEATING		N/A
(C7.1)	Preselection test:		N/A
	Test sample placed for at least 12 h in an oven having temperature ($t_c - 5$) K		N/A
	No operation of the protection device		N/A
(C7.2)	Functioning of protection means:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature such that (tc +0; -5) °C is obtained		N/A
	No operation of the protection device		N/A
	Introducing of the most onerous test condition determined during test of clause 14		N/A
	Output of windings connected to the mains supply short-circuited, and other part of the convertor operated under normal conditions		N/A
	Increasing of the current through the windings continuously until operation of the protection means		N/A
	Continuous measuring of the highest surface temperature		N/A
	Ballasts according to C5 a) or C5 e) operated until stable conditions are achieved		N/A
	Automatic-resetting thermal protectors working 3 times		N/A
	Ballasts according to C5 b) working 6 times		N/A
	Ballasts according to C5 c) and C5) d) working once		N/A
	Highest temperature does not exceed the marked value		N/A
	Any overshoot of 10% over the marked value within 15 min		N/A
D (D)	ANNEX D – REQUIREMENTS FOR CARRY OUT THE HEATING TESTS OF THERMALLY PROTECTED LAMP CONTROLGEAR		N/A
	Tests in C7 performed in accordance with Annex D, if applicable		N/A
E (E)	ANNEX E – USE OF CONSTANT S OTHER THAN 4500 IN tw TESTS		N/A
	Comply with tests according Annex E		N/A
F	ANNEX F - DRAUGHT-PROOF ENCLOSURE		N/A
	Draught-proof enclosure in accordance with the description		N/A
	Dimensions of the enclosure		N/A
	Other design; description		N/A

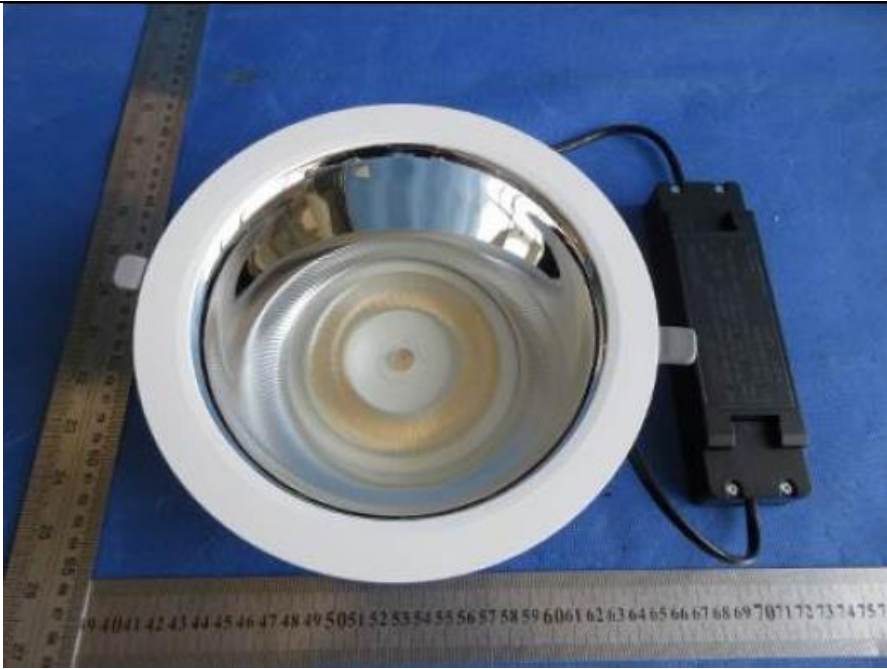
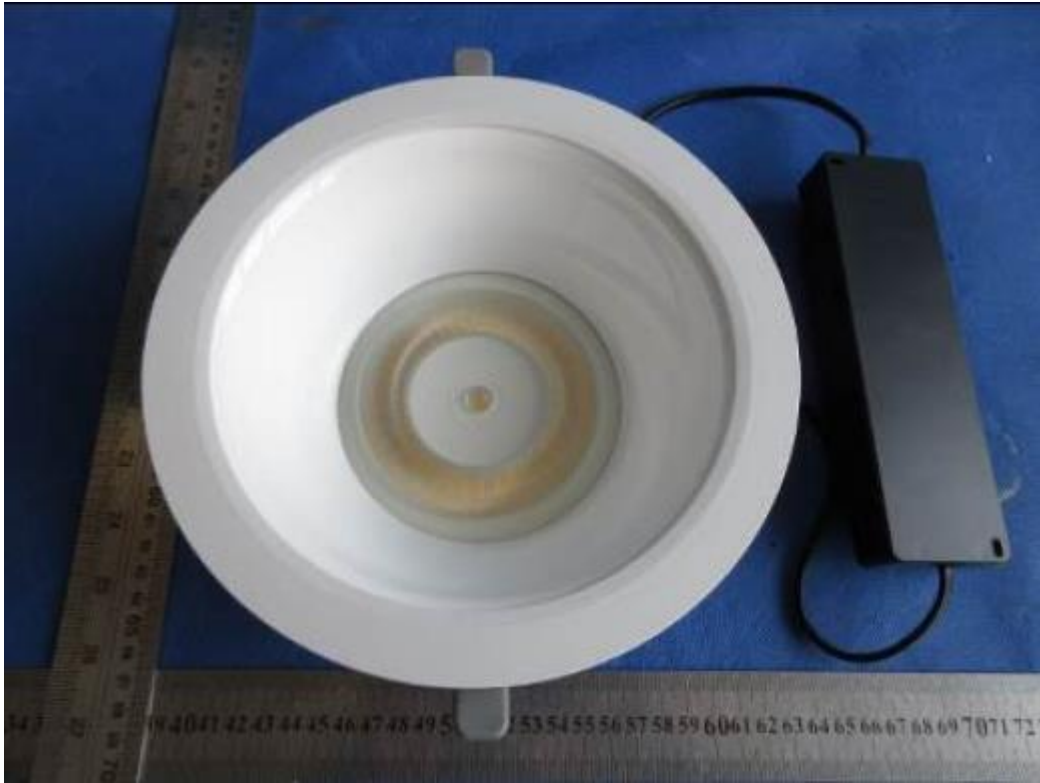
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Clause	Requirement + Test	Result - Remark	Verdict
H (H)	ANNEX H - TESTS		N/A
	All tests performed in accordance with the advice given in Annex H, if applicable		N/A
I (L)	ANNEX I: PARTICULAR ADDITIONAL REQUIREMENTS FOR SELV D.C. OR A.C. SUPPLIED ELECTRONIC CONTROLGEAR FOR LED MODULES		P
(L.3)	Classification		P

	Accessory : Sample photo	—
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Clause	Requirement + Test	Result - Remark	Verdict
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Clause	Requirement + Test	Result - Remark	Verdict

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